Amendments to the Claims:

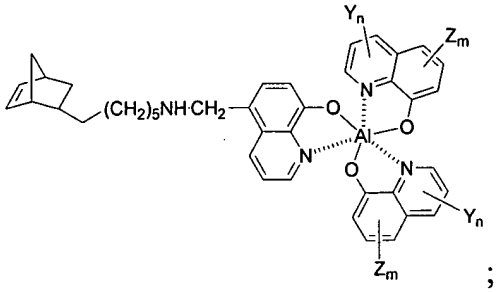
This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend Claims 1, 7, 12, 27, 44, and 48 as indicated in the following Listing of Claims.

Listing of Claims:

1. (Currently amended) An Alq_3-functionalized compound comprising ~~a~~ an olefinic, acetylenic, or diolefinic polymerizable moiety and an Alq_3-moiety, wherein q, in each instance, comprises an 8-hydroxyquinoline residue.

2. (Original) The Alq_3-functionalized compound of Claim 1, wherein the Alq_3-moiety is functionalized with at least one electron-donating group, at least one electron-withdrawing group, or a combination thereof.

3. (Original) The Alq_3-functionalized compound of Claim 1, wherein the Alq_3-moiety is functionalized with at least one group independently selected from: a hydrocarbyl group, an oxygen group, a sulfur group, a nitrogen group, a phosphorus group, an arsenic group, a carbon group, a silicon group, a germanium group, a tin group, a lead group, a boron group, an aluminum group, an inorganic group, an organometallic group, or a substituted analog thereof, any one of which having from 1 to about 30 carbon atoms; a halide; hydrogen; or any combination thereof.

4. (Original) The Alq_3-functionalized compound of Claim 1, wherein the compound has the formula  ;

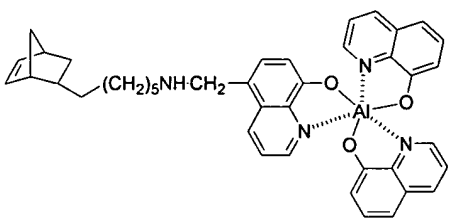
wherein Y and Z are independently selected from -F, -Cl, -Br, -I, $-R^1$, $-CR^1{=}O$, $-CH{=}CHC(O)R^1$, $-C(O)R^1$, $-C(O)OR^1$, -CN, $-C(NR^1)R^1$, $-C(NR^1)OR^1$, $-CH_2C_6H_4X$, $-CH_2C_6H_3X_2$, $-CH_2C_6H_4R^1$, $-CH_2C_6H_3R^1{}_2$, $-CH_2CH_2C_6H_4X$, $-CH_2CH_2C_6H_3X_2$, $CH_2CH_2C_6H_4R^1$, $-CH_2CH_2C_6H_3R^1{}_2$, $-CH{=}CR^1{}_2$, $-C{\equiv}CR^1$, $-OR^1$, $-OC(O)R^1$, $-SiR^1{}_3$, $-OSiR^1{}_3$, $-NO_2$, $-NR^1{}_2$, $-N_3$, $-N{=}CR^1{}_2$, $-N{=}NR^1$, $-SR^1$, -SX, $-OSO_2R^1$, $-OSO_2OR^1$, -SCN, $-SO_2R^1$, $-PR^1{}_2$, $-PX_2$, $-P(O)R^1{}_2$, $-P(OR^1)_2$, $-P(O)(OR^1)_2$, $-OSiR^1{}_3$, $-OPR^1{}_2$, $-OAlR^1{}_2$, $-AsR^1{}_2$, $-As(O)R^1{}_2$, $-As(OR^1)_2$, $-As(O)(OR^1)_2$, $SnR^1{}_3$, $OSnR^1{}_3$, $SnX^1{}_3$, $OSnX^1{}_3$, $-BR^1{}_2$, $-BX_2$, $-BR^1X$, $-SO_2X$, $-OAlX_2$, $-OSiX_3$, $-OPX_2$, $-OSO_2X$, $-AsX_2$, or $-As(O)X_2$;

wherein R^1, in each instance, is independently selected from H or a substituted or unsubstituted hydrocarbyl group having from 1 to about 30 carbon atoms;

wherein X, in each instance, is independently selected from F, Cl, Br, I, H, OR^1, $-SR^1$, or $NR^1{}_2$; and

wherein n and m are independently selected from an integer from 0 to 3.

5. (Original) The Alq_3-functionalized compound of Claim 1, wherein the compound is selected from: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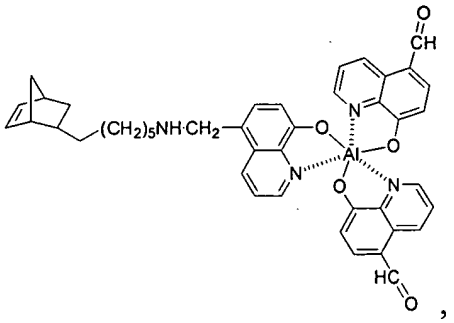
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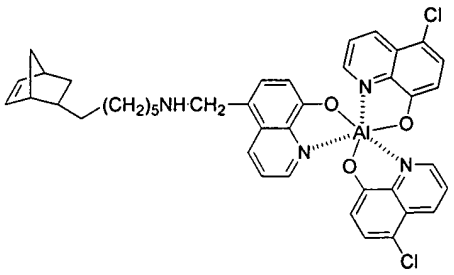
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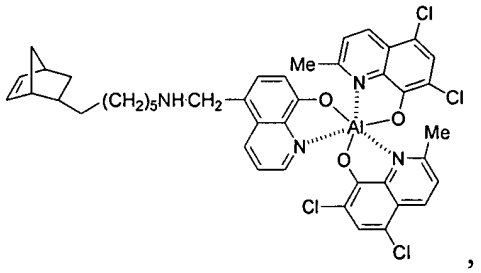
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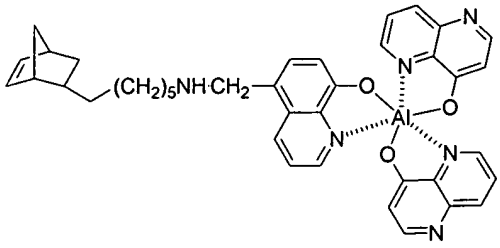
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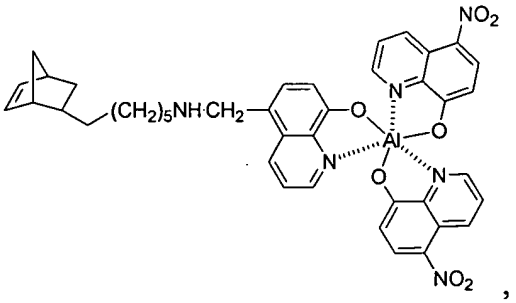
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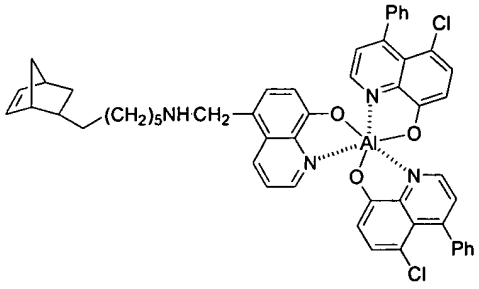
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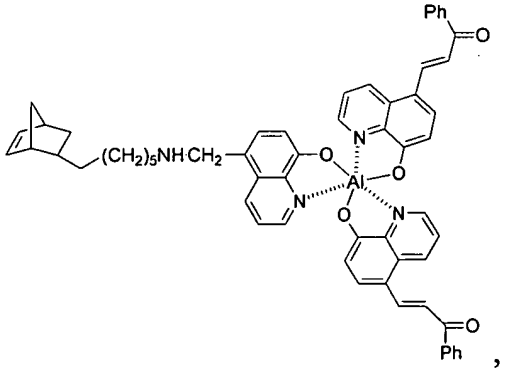
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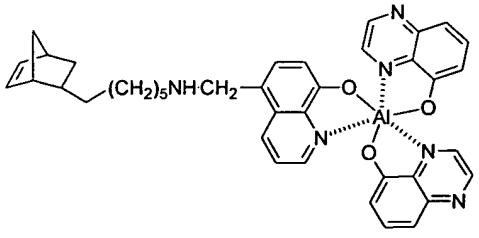
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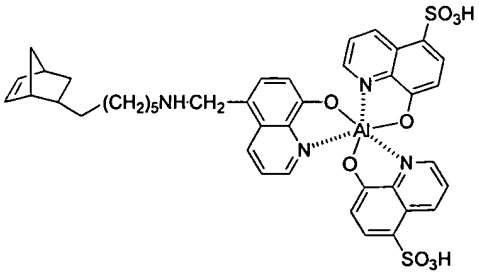
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6. (Original) A light-emitting diode comprising the polymerization product of the Alq_3-functionalized compound of Claim 1.

7. (Currently amended) A composition comprising the polymerization product of an Alq_3-functionalized monomer, wherein the Alq_3-functionalized monomer comprises ~~a~~ an olefinic, acetylenic, or diolefinic polymerizable moiety and an Alq_3-moiety, and wherein q, in each instance, comprises an 8-hydroxyquinoline residue.

8. (Original) The composition of Claim 7, wherein the polymerization product is substantially non-crosslinked.

9. (Original) The composition of Claim 7, wherein the Alq_3-moiety is functionalized with at least one electron-donating group, at least one electron-withdrawing group, or a combination thereof.

10. (Currently amended) The composition of Claim 7, wherein the polymerizable moiety ~~comprises~~ is norbornene.

11. (Original) A light-emitting diode comprising the composition of Claim 7.

12. (Currently amended) A composition comprising the polymerization product of at least one Alq_3-functionalized monomer and at least one comonomer, wherein the Alq_3-functionalized monomer comprises ~~a~~ an olefinic, acetylenic, or diolefinic polymerizable moiety and an Alq_3-moiety, and wherein q, in each instance, comprises an 8-hydroxyquinoline residue.

13. (Currently amended) The composition of Claim 12, wherein the polymerizable moiety ~~comprises~~ is norbornene, norbornadiene, cyclopentene, cyclooctene, cyclooctadiene, or a substituted analog thereof.

14. (Currently amended) The composition of Claim 12, wherein the polymerizable moiety ~~comprises~~ is norbornene or a substituted analog thereof.

15. (Original) The composition of Claim 12, wherein the Alq_3-moiety is functionalized with at least one electron-donating group, at least one electron-withdrawing group, or a combination thereof.

16. (Original) The composition of Claim 12, wherein the Alq_3-moiety is functionalized with at least one group independently selected from: a hydrocarbyl group, an oxygen group, a sulfur group, a nitrogen group, a phosphorus group, an arsenic group, a carbon group, a silicon group, a germanium group, a tin group, a lead group, a boron group, an aluminum group, an inorganic group, an organometallic group, or a substituted analog thereof, any one of which having from 1 to about 30 carbon atoms; a halide; hydrogen; or any combination thereof.

17. (Original) The composition of Claim 12, wherein the Alq_3-moiety is functionalized with at least one group independently selected from -F, -Cl, -Br, -I, $-R^1$, $-CR^1{=}O$, $-CH{=}CHC(O)R^1$, $-C(O)R^1$, $-C(O)OR^1$, -CN, $-C(NR^1)R^1$, $-C(NR^1)OR^1$, $-CH_2C_6H_4X$, $-CH_2C_6H_3X_2$, $-CH_2C_6H_4R^1$, $-CH_2C_6H_3R^1{}_2$, $-CH_2CH_2C_6H_4X$, $-CH_2CH_2C_6H_3X_2$, $CH_2CH_2C_6H_4R^1$, $-CH_2CH_2C_6H_3R^1{}_2$, $-CH{=}CR^1{}_2$, $-C{\equiv}CR^1$, $-OR^1$, $-OC(O)R^1$, $-SiR^1{}_3$, $-OSiR^1{}_3$, $-NO_2$, $-NR^1{}_2$, $-N_3$, $-N{=}CR^1{}_2$, $-N{=}NR^1$, $-SR^1$, -SX, $-OSO_2R^1$, $-OSO_2OR^1$, -SCN, $-SO_2R^1$, $-PR^1{}_2$, $-PX_2$, $-P(O)R^1{}_2$, $-P(OR^1)_2$, $-P(O)(OR^1)_2$, $-OSiR^1{}_3$, $-OPR^1{}_2$, $-OAlR^1{}_2$, $-AsR^1{}_2$, $-As(O)R^1{}_2$, $-As(OR^1)_2$, $-As(O)(OR^1)_2$, $SnR^1{}_3$, $OSnR^1{}_3$, $SnX^1{}_3$, $OSnX^1{}_3$, $-BR^1{}_2$, $-BX_2$, $-BR^1X$, $-SO_2X$, $-OAlX_2$, $-OSiX_3$, $-OPX_2$, $-OSO_2X$, $-AsX_2$, or $-As(O)X_2$; wherein R^1, in each instance, is

independently selected from H or a substituted or unsubstituted hydrocarbyl group having from 1 to about 30 carbon atoms; and wherein X, in each instance, is independently selected from F, Cl, Br, I, H, OR^1, $-SR^1$, or NR^1_2.

18. (Original) The composition of Claim 12, wherein the Alq_3-moiety is functionalized by at least one group independently selected from alkyl, cycloalkyl, alkenyl, alkynyl, aryl, aralkyl, formyl, acyl, imide, amide, imine, alkoxide, aryloxide, alkylthiolate, arylthiolate, alkoxyalkyl, haloalkyl, carboxylate, or a substituted analog thereof, any one of which having up to about 30 carbon atoms.

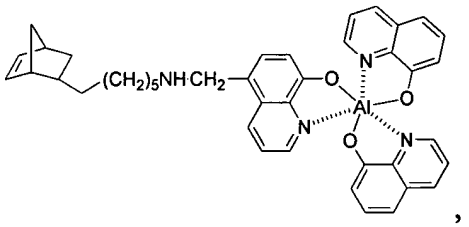
19. (Original) The composition of Claim 12, wherein the Alq_3-moiety is functionalized by at least one group independently selected from methyl, ethyl, propyl, cyclopropyl, n-butyl, tert-butyl, sec-butyl, isobutyl, cyclobutyl, amyl, isoamyl, pentyl, cyclopentyl, hexyl, cyclohexyl, cycloheptyl, heptyl, octyl, cyclooctyl, nonyl, decyl, dodecyl, 2-ethylhexyl, pentenyl, butenyl, benzyl, phenyl, tolyl, naphthyl, anthracenyl, F, Cl, Br, I, OMe, OEt, O-n-Pr, O-i-Pr, O-n-Bu, O-t-Bu, O-s-Bu, OPh, OC_6H_4Me, $OC_6H_3Me_2$, NMe_2, NEt_2, NPh_2, NHMe, NHEt, NHPh, -CH=O, -CH=CHC(O)Ph, or a substituted analog thereof, any one of which having up to about 30 carbon atoms.

20. (Original) The composition of Claim 12, wherein the Alq_3-functionalized monomer further comprises a chemical spacer between the polymerizable moiety and the Alq_3-moiety, having between 1 and about 30 carbon atoms.

21. (Original) The composition of Claim 20, wherein the chemical spacer is selected from $-(CH_2)_nNHCH_2-$ or $-(CH_2)_nNR^1CH_2-$, wherein n is from 1 to about 12, and R^1 is selected from a hydrocarbyl or substituted hydrocarbyl having from 1 to about 30 carbon atoms.

22. (Original) The composition of Claim 12, wherein the polymerization product comprises a block copolymer or a random copolymer.

23. (Original) The composition of Claim 12, wherein the Alq_3-functionalized monomer is selected from:



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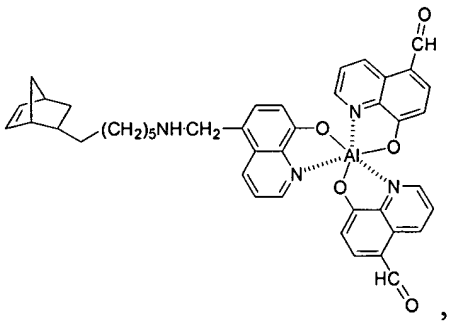

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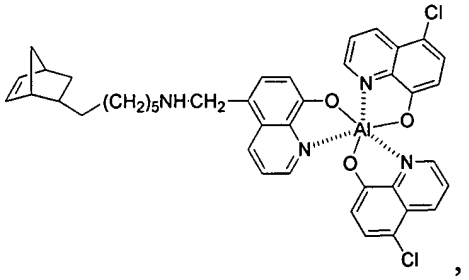

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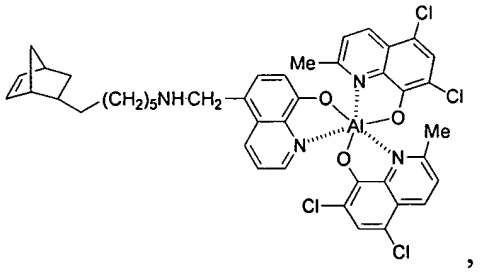

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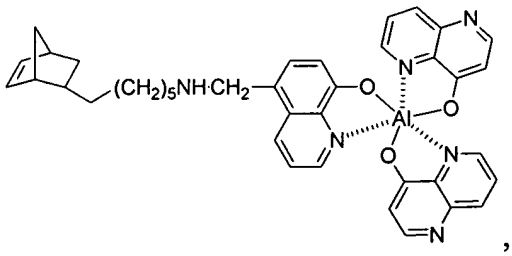

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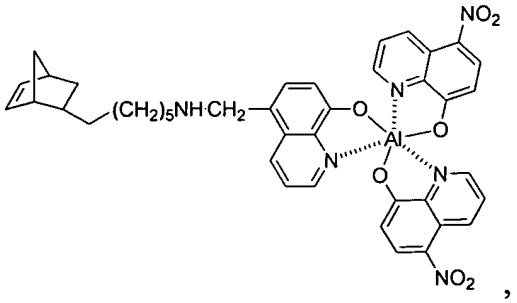

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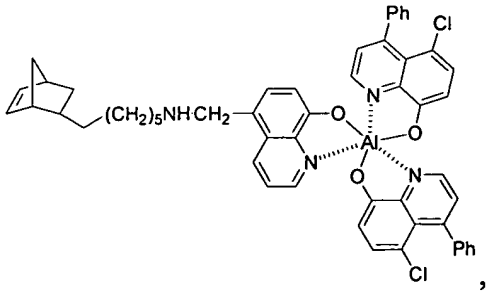

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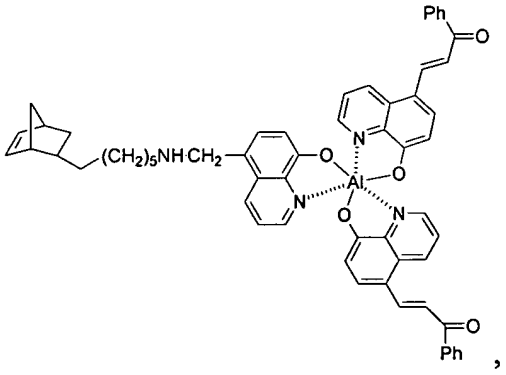

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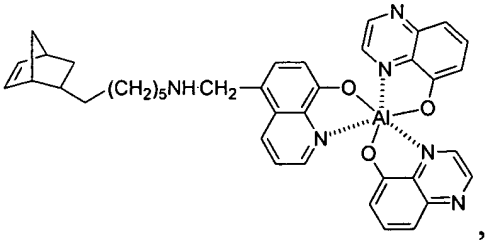

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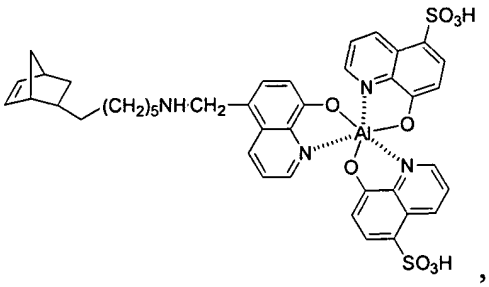
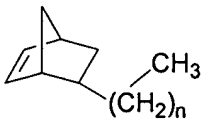


, or any combination thereof.

24. (Original) The composition of Claim 12, wherein the at least one comonomer comprises a compound with the formula 

, wherein n is an integer from 1 to about 12.

25. (Original) The composition of Claim 12, wherein the polymerization product is characterized by a polydispersity (Mw/Mn) from about 1.5 to about 1.8.

26. (Original) A light-emitting diode comprising the composition of Claim 12.

27. (Withdrawn – Currently amended) A method of making an Alq_3-functionalized polymer, comprising:

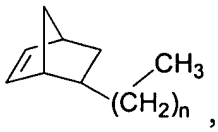
polymerizing an Alq_3-functionalized monomer in the presence or absence of at least one comonomer;

wherein the Alq_3-functionalized monomer comprises ~~a~~ an olefinic, acetylenic, or diolefinic polymerizable moiety and an Alq_3-moiety; and

wherein q, in each instance, comprises an 8-hydroxyquinoline residue.

28. (Withdrawn) The method of Claim 27, wherein the Alq_3-functionalized monomer is polymerized in the presence of at least one comonomer.

29. (Withdrawn) The method of Claim 27, wherein the Alq_3-functionalized monomer is polymerized in the presence of at least one comonomer, and wherein the molar ratio of Alq_3-functionalized monomer to comonomer is from about 1:1 to about 1:100.

30. (Withdrawn) The method of Claim 27, wherein the Alq_3-functionalized monomer is polymerized in the presence of at least one comonomer comprising 

, wherein n is an integer from 1 to about 12.

31. (Withdrawn) The method of Claim 27, wherein the polymerizable moiety of the Alq_3-functionalized monomer is selected from norbornene, norbornadiene, cyclopentene, cyclooctene, cyclooctadiene, or a functionalized analog thereof.

32. (Withdrawn) The method of Claim 27, wherein the method comprises a ring-opening metathesis polymerization (ROMP) method.

33. (Withdrawn) The method of Claim 27, wherein the method comprises a radical polymerization method or a living radical polymerization method.

34. (Withdrawn) The method of Claim 27, wherein the polymerization is conducted in the presence of a catalyst comprising a transition metal carbene compound.

35. (Withdrawn) The method of Claim 27, wherein the polymerization is conducted in the presence of a catalyst comprising $Ru(CHPh)Cl_2[CHN_2(mesityl)_2C_2H_4](PCy_3)$.

36. (Withdrawn) The method of Claim 27, wherein the Alq_3-moiety is functionalized with at least one group independently selected from: a hydrocarbyl group, an oxygen group, a sulfur group, a nitrogen group, a phosphorus group, an arsenic group, a carbon group, a

silicon group, a germanium group, a tin group, a lead group, a boron group, an aluminum group, an inorganic group, an organometallic group, or a substituted analog thereof, any one of which having from 1 to about 30 carbon atoms; a halide; hydrogen; or any combination thereof.

37. (Withdrawn) The method of Claim 27, wherein the Alq_3-moiety is functionalized with at least one group independently selected from -F, -Cl, -Br, -I, $-R^1$, $-CR^1{=}O$, $-CH{=}CHC(O)R^1$, $-C(O)R^1$, $-C(O)OR^1$, -CN, $-C(NR^1)R^1$, $-C(NR^1)OR^1$, $-CH_2C_6H_4X$, $-CH_2C_6H_3X_2$, $-CH_2C_6H_4R^1$, $-CH_2C_6H_3R^1{}_2$, $-CH_2CH_2C_6H_4X$, $-CH_2CH_2C_6H_3X_2$, $CH_2CH_2C_6H_4R^1$, $-CH_2CH_2C_6H_3R^1{}_2$, $-CH{=}CR^1{}_2$, $-C{\equiv}CR^1$, $-OR^1$, $-OC(O)R^1$, $-SiR^1{}_3$, $-OSiR^1{}_3$, $-NO_2$, $-NR^1{}_2$, $-N_3$, $-N{=}CR^1{}_2$, $-N{=}NR^1$, $-SR^1$, -SX, $-OSO_2R^1$, $-OSO_2OR^1$, -SCN, $-SO_2R^1$, $-PR^1{}_2$, $-PX_2$, $-P(O)R^1{}_2$, $-P(OR^1)_2$, $-P(O)(OR^1)_2$, $-OSiR^1{}_3$, $-OPR^1{}_2$, $-OAlR^1{}_2$, $-AsR^1{}_2$, $-As(O)R^1{}_2$, $-As(OR^1)_2$, $-As(O)(OR^1)_2$, $SnR^1{}_3$, $OSnR^1{}_3$, $SnX^1{}_3$, $OSnX^1{}_3$, $-BR^1{}_2$, $-BX_2$, $-BR^1X$, $-SO_2X$, $-OAlX_2$, $-OSiX_3$, $-OPX_2$, $-OSO_2X$, $-AsX_2$, or $-As(O)X_2$; wherein R^1, in each instance, is independently selected from H or a substituted or unsubstituted hydrocarbyl group having from 1 to about 30 carbon atoms; and wherein X, in each instance, is independently selected from F, Cl, Br, I, H, OR^1, $-SR^1$, or $NR^1{}_2$.

38. (Withdrawn) The method of Claim 27, wherein the Alq_3-moiety is functionalized by at least one group independently selected from alkyl, cycloalkyl, alkenyl, alkynyl, aryl, aralkyl, formyl, acyl, imide, amide, imine, alkoxide, aryloxide, alkylthiolate, arylthiolate, alkoxyalkyl, haloalkyl, carboxylate, or a substituted analog thereof, any one of which having up to about 30 carbon atoms.

39. (Withdrawn) The method of Claim 27, wherein the Alq_3-moiety is functionalized by at least one group independently selected from methyl, ethyl, propyl, cyclopropyl, n-butyl, tert-butyl, sec-butyl, isobutyl, cyclobutyl, amyl, isoamyl, pentyl, cyclopentyl, hexyl, cyclohexyl, cycloheptyl, heptyl, octyl, cyclooctyl, nonyl, decyl, dodecyl, 2-ethylhexyl,

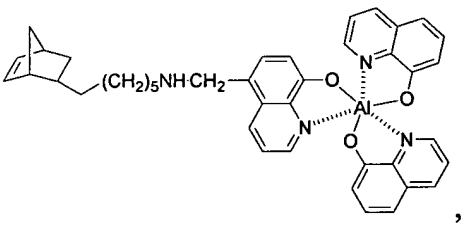
pentenyl, butenyl, benzyl, phenyl, tolyl, naphthyl, anthracenyl, F, Cl, Br, I, OMe, OEt, O-n-Pr, O-i-Pr, O-n-Bu, O-t-Bu, O-s-Bu, OPh, OC_6H_4Me, $OC_6H_3Me_2$, NMe_2, NEt_2, NPh_2, NHMe, NHEt, NHPh, -CH=O, -CH=CHC(O)Ph, or a substituted analog thereof, any one of which having up to about 30 carbon atoms.

40. (Withdrawn) The method of Claim 27, wherein the Alq_3-functionalized monomer further comprises a chemical spacer between the polymerizable moiety and the Alq_3-moiety, having between 1 and about 30 carbon atoms.

41. (Withdrawn) The method of Claim 40, wherein the chemical spacer is selected from -$(CH_2)_nNHCH_2$- or -$(CH_2)_nNR^1CH_2$-, wherein n is from 1 to about 12, and R^1 is selected from a hydrocarbyl or substituted hydrocarbyl having from 1 to about 30 carbon atoms.

42. (Withdrawn) The method of Claim 27, wherein the polymerization product comprises a block copolymer.

43. (Withdrawn) The method of Claim 27, wherein the Alq_3-functionalized monomer is selected from:



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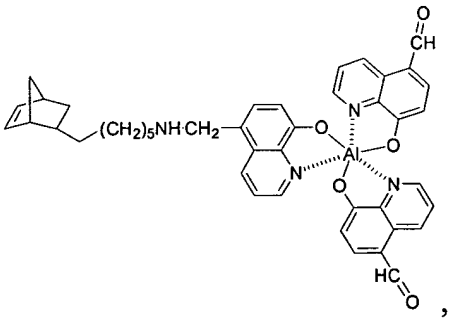

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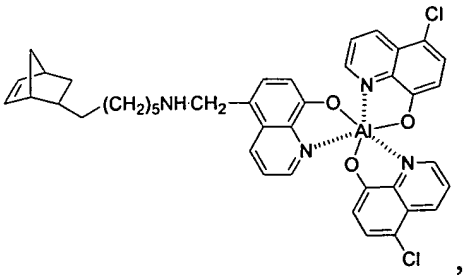

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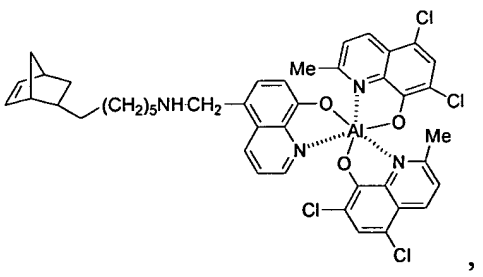

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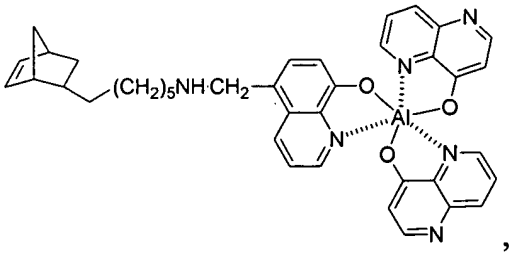

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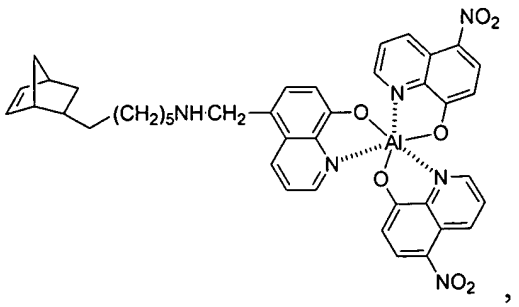

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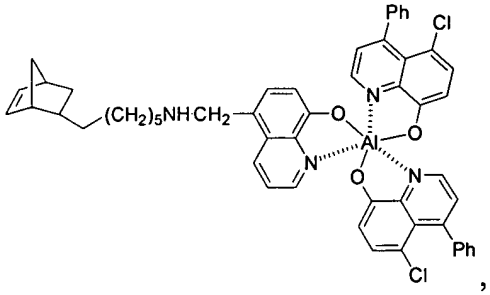

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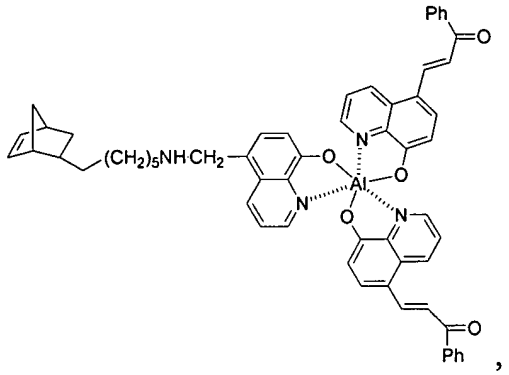

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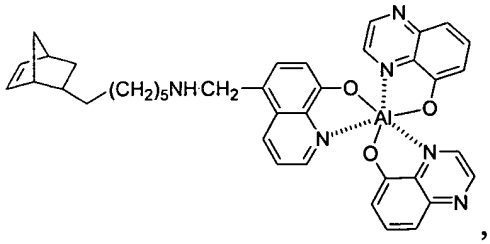

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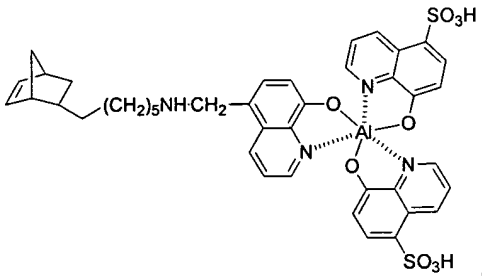


, or any combination thereof.

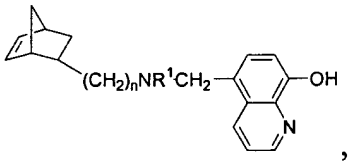
44. (Withdrawn – Currently amended) A method of functionalizing a polymer with an Alq_3 moiety, comprising:

providing an Alq_3-functionalized monomer; and

polymerizing an Alq_3-functionalized monomer in the presence or absence of at least one comonomer;

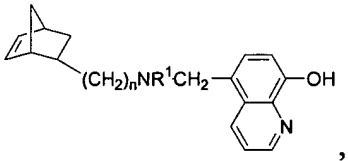
wherein the Alq_3-functionalized monomer comprises ~~a~~ an olefinic, acetylenic, or diolefinic polymerizable moiety and an Alq_3-moiety; and

wherein q, in each instance, comprises an 8-hydroxyquinoline residue.



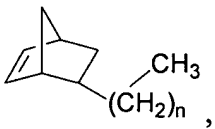
45. (Original) A compound having the formula , wherein: n is from 1 to about 12; and R^1 is selected from H, a hydrocarbyl, or a substituted hydrocarbyl having from 1 to about 30 carbon atoms.

46. (Original) A composition comprising the polymerization product of:



1) a compound having the formula , wherein: n is from 1 to about 12; and R^1 is selected from H, a hydrocarbyl, or a substituted hydrocarbyl having from 1 to about 30 carbon atoms; and

2) at least one optional comonomer having up to about 30 carbon atoms.

47. (Original) The composition of Claim 46, wherein the at least one comonomer comprises a compound with the formula 

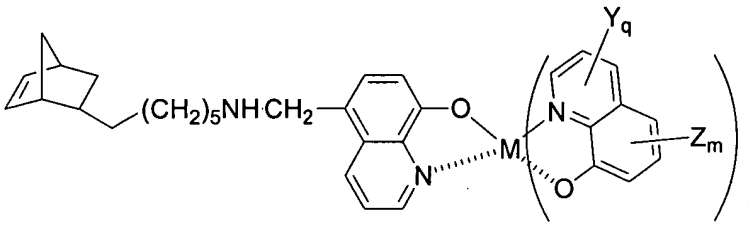
, wherein n is an integer from 1 to about 12.

48. (Currently amended) An Mq_n-functionalized compound comprising ~~a~~ an olefinic, acetylenic, or diolefinic polymerizable moiety and an Mq_n-moiety, wherein q, in each instance, comprises an 8-hydroxyquinoline residue, and M is selected from Mg, Zn, Al, Ga, or In; and n is selected from 2 or 3 according to the valence of the metal.

49. (Original) The Mq_n-functionalized compound of Claim 48, wherein the Mq_n-moiety is functionalized with at least one electron-donating group, at least one electron-withdrawing group, or a combination thereof.

50. (Original) The Mq_n-functionalized compound of Claim 48, wherein the Mq_n-moiety is functionalized with at least one group independently selected from: a hydrocarbyl group, an oxygen group, a sulfur group, a nitrogen group, a phosphorus group, an arsenic group, a carbon group, a silicon group, a germanium group, a tin group, a lead group, a boron group, an aluminum group, an inorganic group, an organometallic group, or a substituted analog thereof, any one of which having from 1 to about 30 carbon atoms; a halide; hydrogen; or any combination thereof.

51. (Original) The Mq_n-functionalized compound of Claim 48, wherein the compound has the formula



;

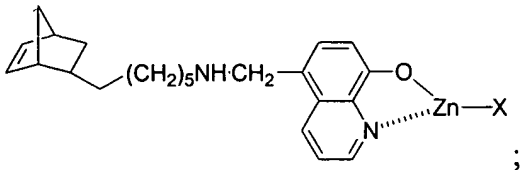
wherein Y and Z are independently selected from -F, -Cl, -Br, -I, $-R^1$, $-CR^1{=}O$, $-CH{=}CHC(O)R^1$, $-C(O)R^1$, $-C(O)OR^1$, -CN, $-C(NR^1)R^1$, $-C(NR^1)OR^1$, $-CH_2C_6H_4X$, $-CH_2C_6H_3X_2$, $-CH_2C_6H_4R^1$, $-CH_2C_6H_3R^1{}_2$, $-CH_2CH_2C_6H_4X$, $-CH_2CH_2C_6H_3X_2$, $CH_2CH_2C_6H_4R^1$, $-CH_2CH_2C_6H_3R^1{}_2$, $-CH{=}CR^1{}_2$, $-C{\equiv}CR^1$, $-OR^1$, $-OC(O)R^1$, $-SiR^1{}_3$, $-OSiR^1{}_3$, $-NO_2$, $-NR^1{}_2$, $-N_3$, $-N{=}CR^1{}_2$, $-N{=}NR^1$, $-SR^1$, -SX, $-OSO_2R^1$, $-OSO_2OR^1$, -SCN, $-SO_2R^1$, $-PR^1{}_2$, $-PX_2$, $-P(O)R^1{}_2$, $-P(OR^1)_2$, $-P(O)(OR^1)_2$, $-OSiR^1{}_3$, $-OPR^1{}_2$, $-OAlR^1{}_2$, $-AsR^1{}_2$, $-As(O)R^1{}_2$, $-As(OR^1)_2$, $-As(O)(OR^1)_2$, $SnR^1{}_3$, $OSnR^1{}_3$, $SnX^1{}_3$, $OSnX^1{}_3$, $-BR^1{}_2$, $-BX_2$, $-BR^1X$, $-SO_2X$, $-OAlX_2$, $-OSiX_3$, $-OPX_2$, $-OSO_2X$, $-AsX_2$, or $-As(O)X_2$;

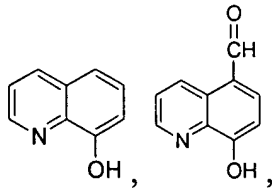
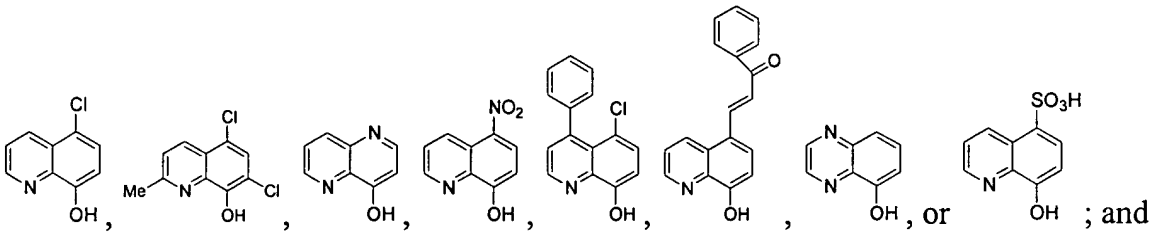
wherein R^1, in each instance, is independently selected from H or a substituted or unsubstituted hydrocarbyl group having from 1 to about 30 carbon atoms;

wherein X, in each instance, is independently selected from F, Cl, Br, I, H, OR^1, $-SR^1$, or $NR^1{}_2$; and

wherein q and m are independently selected from an integer from 0 to 3.

52. (Original) The Mq_n-functionalized compound of Claim 48, wherein:

the compound has the formula  ;

X is selected from an 8-hydroxyquinoline residue selected from  ,  ; and

wherein the 8-hydroxyquinoline residue has been deprotonated.

53. (Withdrawn) A method of making a Mq_n-functionalized polymer, comprising:

preparing a q_n-functionalized monomer;

polymerizing the monomer in the presence or absence of a comonomer to form a q_n-functionalized polymer; and

reacting the polymer with a metal complex to form a Mq_n-functionalized polymer;

wherein M is selected from Mg, Zn, Al, Ga, or In; and n is selected from 2 or 3 according to the valence of the metal.